

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 70.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003260**Date Inspected:** 22-Jul-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 2300**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Japan Steel Works**Location:** Muroran, Japan**CWI Name:** Makhmud Ashadi**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower, Deviation and Jacking Saddles**Summary of Items Observed:**

On this date OSM Quality Assurance (QA) Representative Daniel L. Reyes was present during the welding of the structural steel components for the West Deviation Saddles relative to this project. The following was observed:

Fabrication Shop # 4

At the start of the shift the QA inspector traveled to the Fabrication Shop # 4 to observe the work scheduled for this shift. Upon the arrival at the shop facility it was observed by the QA inspector that the Japan Steel Works, Ltd. (JSW) welding personnel was performing the repair welding on the West Deviation Saddle identified as W2E1. The areas were previously marked for repair by the Quality Control (QC) Inspectors, Intertek Testing Services (ITS) personnel Chung Fu-Kuan and Makhmud Ashadi. The nature of the repairs appeared to be undercut, overlap and general grinding of weld profiles.

The welding was performed on this shift by JSW welding personnel Yoshito-Nakano ID 08-2011 and Mamoru-Kubota ID 3666 which was performed in 2G horizontal position as per the Welding Procedure Specification (WPS) SJ-3011-2. The WPS was also used by the QC inspector as a reference. The Shielded Metal Arc Welding (SMAW) process was utilized and the electrode size appeared to be 4.0 mm in diameter which appeared to be a Hobart Brothers Product. The trade name of the consumable appeared to be identified as Hoballoy 9018-M and appeared to comply with the AWS Specification A5.5 and the AWS Classification E9018-M H4R.

The QA inspector observed the QC inspector Makhmud Ashadi verify the minimum preheat temperature of 180 Celsius and the maximum interpass temperature of 200 Celsius. At the conclusion of verifying the surface temperatures the QC inspector verified the Alternating Current (AC) welding parameters and was observed as follows, 195 amps and 23 volts with a travel speed measured at 105 mm/m. The scheduled work for this shift was

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not completed on this date.

QA Observance Summary

This QA inspector randomly observed the in process Shielded Metal Arc Welding (SMAW) during the repair welding of the structural steel components for the West Deviation Saddles identified as W2E1. This QA inspector noted that it appeared the approved and latest revised WPS's were posted at the welding station and that each approved welder was entered in the latest revised Welding Personnel Log issued by Japan Steel Works, Ltd. The welding parameters, preheat and interpass temperatures were verified by the QA inspector utilizing a Fluke 337 clamp meter for the electrical welding parameters and Tempilstik temperature indicators for the preheat temperatures. The filler metal utilized by the JSW welding personnel was also verified. The QC inspector, Mukhmud Ashadi appeared to perform the visual weld examinations, monitoring of the welding and the verification of the welding parameters as per the contract documents.

Summary of Conversations:

There were no pertinent conversations relative to the project on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Venkatesh Iyer, (858) 967-6363, who represents the Office of Structural Materials for your project.

Inspected By:	Reyes,Danny	Quality Assurance Inspector
Reviewed By:	Lanz,Joe	QA Reviewer
